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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923.810	08/08/2001	Sok Joo Lee	049128-5025	9929
9629	7590	01/07/2004	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			SEFER, AHMED N	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 01/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/923,810

Applicant(s)

LEE ET AL.

Examiner

A. Sefer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 8-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I (claims 1-7 and 15-20) is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Seo et al USPN 5,25,437.

Seo et al disclose (see fig. 8 and col. 7, lines 23-44) a liquid crystal display device, wherein a conductive line including drain electrode 8 (as in claim 7) is in electrical contact with a transparent electrode 10 comprising a first metal layer 2 including an aluminum-alloy (as in claim 2) formed from a first metal; and an alloy layer 3 formed from an alloy of the first metal and another metal is disposed at an upper portion of the first metal layer.

As for claim 3, Seo et al disclose (see fig. 11 and col. 9, lines 7-30) a first metal layer having a thickness, which falls within the range recited in the claim.

As for claim 4, Seo et al disclose (see fig. 8 and col. 7, lines 34-43) an alloy layer formed from an alloy including a first metal and a second metal deposited onto the first metal layer.

As to the subsequent removal of the second metal, it refers to a process and "product by process" claims are directed to the product per se, no matter how actually made, In re Hirao, 190

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USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685 and *In re Thorpe*, 227 USPQ 964, 966. Therefore, the way the product was made does not carry any patentable weight as long as the claims are directed to a device. Further, note that the applicant has the burden of proof in such cases, as the above case law makes clear. Also see MPEP 2113.

4. Claims 1, 4, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hong et al USPN 6,130,443.

Hong et al disclose (see fig. 4 and col. 4, lines 14-27) a liquid crystal display device, wherein a conductive line including drain electrode 620 (as in claim 7) is in electrical contact with a transparent electrode 800 comprising a first metal layer 622 formed from a first metal; and an alloy layer 623 formed from an alloy of the first metal and another metal including molybdenum (as in claim 5) is disposed at an upper portion of the first metal layer.

As for claim 4, Hong et al disclose (see fig. 8 and col. 7, lines 34-43) an alloy layer formed from an alloy including a first metal and a second metal deposited onto the first metal layer.

As to the subsequent removal of the second metal, it refers to a process and "product by process" claims are directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685 and *In re Thorpe*, 227 USPQ 964, 966. Therefore, the way the product was made does not carry any patentable weight as long as the claims are directed to a device. Further, note that the applicant has the burden of proof in such cases, as the above case law makes clear. Also see MPEP 2113.

5. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hwang USPN 5,852,481.

Hwang discloses in fig. 2 a liquid crystal display device, wherein a conductive line including a gate electrode 200 (as in claim 6) or drain electrode 119 (as in claim 7) is in electrical contact with a transparent electrode 122 comprising a first metal layer 112 including an aluminum-alloy (as in claim 2) formed from a first metal; and an alloy layer 113 formed from an alloy of the first metal and another metal is disposed at an upper portion of the first metal layer.

As for claim 3, the specification contains no disclosure of either the critical nature of the claimed arrangement or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

As for claim 4, Hwang discloses in fig. 2C an alloy layer formed from an alloy including a first metal and a second metal deposited onto the first metal layer.

As to the subsequent removal of the second metal, it refers to a process and "product by process" claims are directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685 and In re Thorpe, 227 USPQ 964, 966. Therefore, the way the product was made does not carry any patentable weight as long as the claims are directed to a device. Further, note that the applicant has the burden of proof in such cases, as the above case law makes clear. Also see MPEP 2113.

6. Claims 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hwang USPN 5,852,481.

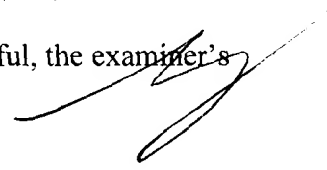
Hwang discloses in fig. 2 A liquid crystal display device, comprising: a substrate; a gate electrode 200 disposed on the substrate; a gate pad 210 disposed on the substrate; an insulating

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film 115/116 disposed on the gate electrode and the gate pad; an active layer 117 disposed on the insulating film above the gate electrode; an ohmic 118 contact layer disposed on portions of the active layer; a source electrode 119 and a drain electrode 119 disposed on the ohmic contact layer; a passivation layer 121 disposed on the source and drain electrodes; a pixel electrode 122 disposed on the passivation layer and contacting the drain electrode; and a transparent electrode 122 disposed on the passivation layer or disposed within a via formed through the passivation layer and insulating layer (as in claim 17) and covering side surfaces of the source and drain electrodes (as in claim 18) or disposed on the insulating layer (as in claim 19) and contacts the gate pad or a second layer of the gate pad (as in claim 16) or contact a portion of the active layer between the source and drain electrodes (as in claim 20), wherein the gate electrode and the gate pad both include a first layer formed of a first metal 112 and a second layer 113 formed of an alloy of the first metal and a second metal disposed at an upper surface of the first layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (703) 605-1227.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601.



ANS
December 17, 2003